

AECOM 303 E. Wacker Drive, Suite 900 Chicago, Illinois 60601 312-938-0300 tel 312-938-1109 fax

October 28, 2013

Mr. John Doherty Ewing-Doherty Mechanical, Inc. 304 North York Road Bensenville, IL 60106

RE: Radiological Survey of Right-of-Way Utility Excavation

Permit No.: 354480750

Permit Address: 332 East North Water Street

AECOM Project No. 60241812

Dear Mr. Doherty:

Pursuant to conditions specified in a permit (see attached) issued by the City of Chicago, radiation monitoring was required to be performed at the above referenced site. AECOM Technical Services, Inc. (AECOM) provided the required radiation monitoring between the days of October 8 and 11, 2013 for trench excavations to install the water service to new construction (i.e., 455 N. Park).

Surveying was conducted in 18-inch lifts for soils removed from a 4-foot wide by approximately 80-foot long trench excavation to a maximum depth of about 5-feet below the pavement/ground surface in the Rights-of-Way (ROW) of East North Water Street (see attached sketch). The gamma survey monitoring revealed no indication of soils above the cleanup value established by the U.S. Environmental Protection Agency (USEPA) for the Streeterville area of Chicago. The USEPA cleanup value for Chicago's Streeterville area is 7.1 picocuries per gram (pCi/g) total radium (Ra-226 + Ra-228).

Gamma radiation measurements for the project were made using a Ludlum Model 2221 survey meter and an unshielded 2 x 2 inch sodium iodide (Nal) probe Model 44-10. For the field instrument used, the gamma count equivalent to the USEPA 7.1 pCi/g cleanup value was 18,701 counts per minute (cpm) unshielded. Thus, gamma readings above 18,701 cpm threshold would be considered a potential indication of the presence of radiologically contaminated fill soil.

The field gamma background for the area was measured at approximately 7,900 cpm unshielded. In general, field gamma measurements greater than twice background represent potential anomalous results that require more cautious field screening, but are not necessarily indications of the presence of thorium contaminated fill soil.

The excavation spoil was urban fill with slag and cinders. The field gamma measurements within the excavation and of the spoil materials generated during the excavation process did not exceed the threshold value equivalent to the USEPA cleanup value previously stated and ranged from a minimum of 5,000 cpm to a maximum of 15,000 cpm unshielded. The majority of the gamma readings were less than 10,000 cpm, but the highest values (between 14,000 and 15,000 cpm) were observed at the base of the trench (i.e., maximum/final depth) while utilizing an unshielded probe. It is believe these readings were biased high because of depth of the trench and the use of an unshielded probe. In any case, there was no indication of the presence of radiologically-contaminated fill soil and/or an exceedance of the USEPA cleanup value of 7.1 pCi/g total radium.

As part of the permit conditions this letter has been forwarded to:

Radiological Survey of Right-of-Way Utility Excavation

Permit No.: 354480750

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Chicago Department of Public Health Attention: Ms. Rahmat Begum 333 South State Street, Room 200

Chicago, Illinois 60604

Please contact us with any questions you have regarding this letter or the reported results.

Regards,

Brian R. Schmidt Project Scientist II Steven C. Kornder, Ph.D. Senior Project Geoscientist

cc: Rahmat Begum, Chicago Department of Public Health

Verneta Simon, USEPA

Attachments: Permit

Contractor Drawing Survey Sketch



## DEPARTMENT OF PUBLIC HEALTH

## CITY OF CHICAGO

## FORM NO. CDPH.ROW.03

Notice is hereby given that the site you have requested a permit for is recorded with the City of Chicago Department of Public Health (CDPH) as potentially having environmental contamination on the site and adjacent right-of way. This environmental contamination could present a threat to human health and safety in connection with work performed at the site, or in the adjacent right-of-way, if proper safeguards are not employed.

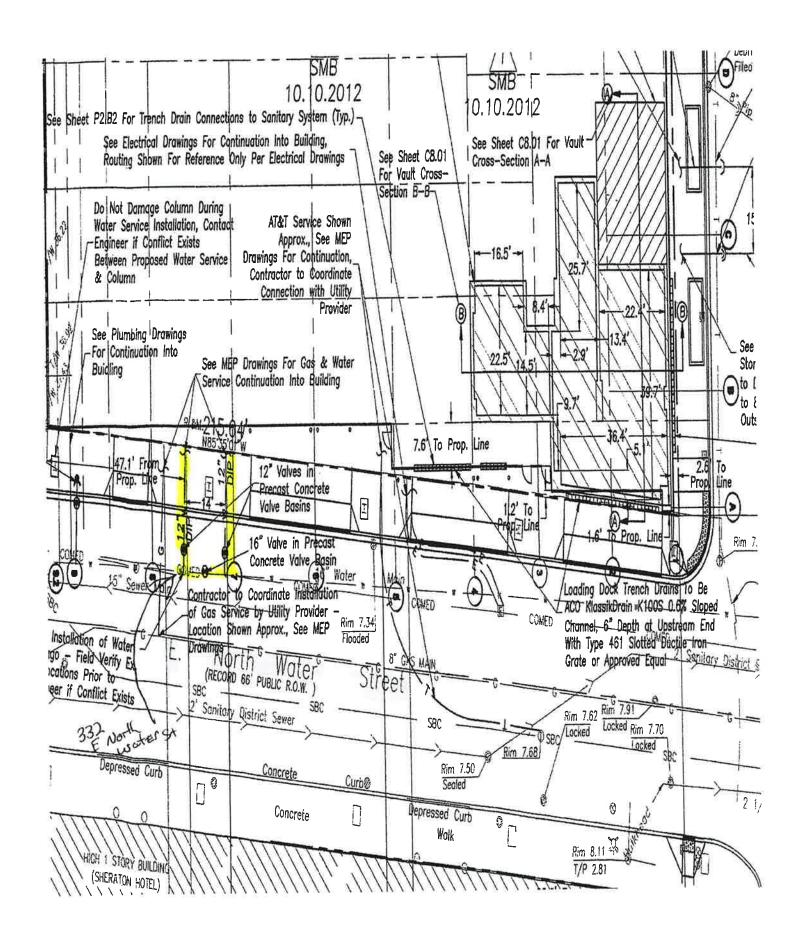
A file containing detailed information regarding the aforementioned environmental contamination is available for review at CDPH at 333 S. State St., Room 200, Chicago, Illinois 60604 during normal business hours (8:30AM-4:30PM, Monday through Friday). Contact (312) 745-3152 for an appointment. This file must be reviewed and the remainder of this form completed before the permit can be issued if the ground is exposed or excavated. Please note that for some locations, additional health and safety procedures may be required by law.

Please complete the following:

I have reviewed and understand the documents, maintained by CDPH, regarding environmental contamination of the site and adjacent right-ofway. Further, I will ensure that all work at the subject site and adjacent right-of-way, and any monitoring required including but not limited to radiation monitoring, will be performed in a manner that is protective of human health and the environment and in compliance with all applicable local, state, and federal laws, rules, and regulations, especially those pertaining to worker safety and waste management. I will ensure that the results of any radiation monitoring and/or surveying conducted shall be provided to the CDPH and the United States Environmental Protection Agency within two (2) weeks of their completion. If any elevated levels of radioactive material are detected, I will immediately contact the United States Environmental Protection Agency at (800) 424-8802.

United States Environmental Protection Agency at (800) 424-8802.	0001
Applicant Name (print): John Doherty	Signature:
Site Address and Work Location (Describe exact site location and attach map):	332 E North Water st
Nature of Work: Water Service - X/eW  Ewing-Doherty Mechanic 304 North York Road, B	al, Inc. 630-766-5920 ensenville, IL 60106
General / Prime Contractor Name, Address, Phone No.: Lend LEase 3:  Include subcontractor information if applicable) Safety Officer / Phone No. Gloria Zamora 312-841-4212	
Radiation Contractor / Phone No. (if applicable) AECOM 750 Corporate Woods	s PKWY, Vernon Hills Il 847-279-2500
Check if City Department Work   Department Name:	
CDOT Permit No.: 35 4 480 750  Today's Date: 9/20/2013 Expected Start Date: 9/22/2013	CDPH Approval / Date Kahmatunisa Begun
Please return this completed form to the Chicago Department of Transportation Office, City Hall – Room 905, 121 N. LaSalle St., Chicago, Illinois 60602 duri Friday)	Division of Infrastructure Management, Public Way Permit

For CDPH Use Only





JOB TITLE 455 N Park + Water Service

JOB NO. 6094/8/2 CALCULATION NO.

ORIGINATOR 26 DATE 10/11/13

REVIEWER 3CH DATE 10/11/13

SCALE NTS SHEET NO. 0F 1

